

WHAT IS CLAIMED IS:

1. A broadband transducer controlled by magnetic field coupling, said transducer has signal volume control of a hi-fi set that is achieved by means of variable resistance originally achieved instead by means of a magnetic field coupler, wherein, said magnetic field coupler has a primary coil and a secondary coil with an adjustable gap therebetween, an adjusting rod is provided in said gap for adjustment and control; thereby, magnetic resistance is controlled to control volume of sounds; using of low voltage amplifying saves energy source and lowers cost of production, and gives an amplifier an ideal acoustic effect able to give sweet sounds such as is done with a vacuum tube type hi-fi set and to give pushout power such as is done with a transistor type hi-fi set.

2. A broadband transducer controlled by magnetic field coupling as in claim 1, wherein,

said primary coil of said magnetic field coupler has a multi-circle high impedance of about $50 \sim 5k\Omega$ being adapted to making good matching with a signal source; and said secondary coil is adapted to getting a low voltage reduced by same ratio and an electric current amplified by the same ratio.

3. A broadband transducer controlled by magnetic field coupling as in claim 2, wherein,

the voltage of said signal source is compressed to a small one, namely $1/2 \sim 1/10$ of said voltage, at the same time, the current of said signal source is amplified for $2 \sim 10$ folds.

4. A broadband transducer controlled by magnetic field coupling as in claim 2, wherein,

said magnetic field coupler is serially connected on the rear end thereof to a coupler stage, an amplifier stage and another coupler stage; all the processes of

amplifying are proceeded to under low voltages for amplifying voltage "V" and current "I", so that 28.3 V is just adequate for push 8 Ω loudspeakers to 100W.

5. A broadband transducer controlled by magnetic field coupling as in claim 4, wherein,

5 a magnetic field coupler is also connected to the output end of said hi-fi set, the output and input signals of an entire circuit are all controlled by magnetic field coupling and high frequency skin effect to get a balance of loudness of high and low frequencies, in this way, an effect of broadband transmission of 5~200KHz is acquired.

10 6. A broadband transducer controlled by magnetic field coupling as in claim 5, wherein,

said magnetic field coupler of said circuit at said output end of said hi-fi set is divided into two mutually serially connected circuit modules, said circuit modules are selected from those having same voltage amplifications and different electric
15 current amplifications, and are mutually mated in combinations in multiplying powers.

7. A broadband transducer controlled by magnetic field coupling as in claim 6, wherein,

said circuit modules each is a single circle, and have three kinds of
20 specifications of electric current amplifications 1 : 2 : 3, so that they are mated in combinations in application to get by multiplication a plurality of sound signal compression and amplification ratios of 1, 2, 3, 4, 6 and 9 folds.